Record Nr. UNINA9910829816503321 Autore Luzeaux Dominique Titolo Systems of systems [[electronic resource] /] / edited by Dominique Luzeaux, Jean-Rene Ruault Pubbl/distr/stampa London, : ISTE Hoboken, N.J., : Wiley, 2010 **ISBN** 1-118-61974-9 1-118-55749-2 1-299-31549-6 1-118-61980-3 Edizione [1st edition] Descrizione fisica 1 online resource (550 p.) Collana **ISTE** Altri autori (Persone) LuzeauxDominique RuaultJean-Rene Disciplina 620.001/171 620.001171 Soggetti Systems engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia First published 2008 in France by Hermes Science/Lavoisier in two Note generali volumes entitled: Systemes de systemes : concepts et illustrations prqtiques and Ingenierie des systemes de systemes : methodes et outils. Nota di bibliografia Includes bibliographical references and index. pt. 1. Systems of systems, concepts and practical illustrations -- pt. 2. Nota di contenuto Systems of systems engineering, methods, standards and tools. Sommario/riassunto In recent decades, the systems designed in the fields of banking. health, transportation, space, aeronautics, defense, etc. have been becoming increasingly larger. With the growing maturity of information and communication technologies, systems have been interconnected within growing networks, yielding new services through the combination of the system functionalities. This has led to an increasing complexity that has to be managed in order to take advantage of these system integrations. Part 1: Systems of systems: concepts and practical illustrations is a multidisciplinary work on the concept of the systemsof-systems that is discussed extensively in current literature. After a critical comparison of the different definitions and a range of various practical illustrations, it provides key answers as to what a system of

systems is and how its complexity can be mastered. Part 2: Systems-of-systems engineering: methods and tools focuses on both engineering and modeling, and standardization issues which are critical in order to deal with the key steps of systems-of-systems engineering: elicitation of stakeholders needs, architecture optimization, integration of constituent systems, qualification and utilization.